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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,708

03/01/2006

Arnaud Helie

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10/09/2007

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EXAMINER

MCGRAW, TREVOR EDWIN

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

10/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/566,708

Applicant(s)

HELIE ET AL.

Examiner

Trevor McGraw

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 8, 10, 11, 12, 13, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Garrigou (US 3,625,437):

In regard to Claims 1, 8, 10, 11 and 12, Garrigou (3,625,437) teaches a fluid dispenser device that includes a fluid spray head manufactured from a common mold (Column 1, Lines 30-68) where the spray head has an expulsion channel (13) with a spray orifice (14) and a spray profile (15,16,17) are formed in an end wall of the spray head where non radial spray channels (17) are formed to the swirling chamber (Column 3, line 46-55) which opens to a spray chamber (16) that is disposed upstream of the spray orifice (14) where an insert (2) **forms an internal nozzle (see Figure 1 and 3 where 14 sits over 9 to form internal nozzle within the insert and forms a base surface for the spray profile. The internal nozzle that is created is configured along with the spray head with an upstream opening in the spray head) and is introduced through the inside of the spray head being disposed in the expulsion channel (13) so as to form a cover for the spray profile (15,16,17) where the central axis (X) of the insert (2) is substantially identical to the central axis (Y) of the expulsion channel (13) (Figure 4) and where the expulsion channel (13) further has a centering**

means (19) for centering the insert (2) within the spray head that is located in the expulsion channel (13) for centering the insert (2) where the centering means (19) is in close proximity to the spray profile (15,16,17).

In regard to Claim 2, 13 and 14, Garrigou also teaches where the centering means (19) has at least one projection (see plurality of centering means 19 in Figure 4) that totals 4 projections which inherently includes more than 3 and less than 3 projections where the diameter of the inscribed circle (see Figure 4) defined by the projections (19-centering means) is substantially identical to the diameter of the insert (2) where the projections extend from an inside wall of the expulsion channel (13) and abut the insert (2) to substantially align the central axis of the insert with the central axis of the expulsion channel (13).

In regard to Claim 4 and 16, Garrigou further teaches where the accesses of the expulsion channel (13) of the feed channel (17) are formed between the projections (Centering means projections 19-Figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5-7, 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrigou (US 3,625,437) in view of Ennis, III (US 4,923,448).

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In regard to claim 3 and 15, Garrigou as taught and described above teaches the claimed invention except for the expulsion channel (13) having three flat surfaces that are symmetrically arranged about the expulsion channel (13) where the flat surfaces cooperate with the insert (9) to center the insert (9) relative to the expulsion channel (13). Ennis, III (4,923,448) teaches that it is known to have an expulsion channel (52) that includes at least 3 flat surfaces (64) that are symmetrically placed about the expulsion channel (13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the flat surfaces (64) of the expulsion channel (52) as taught by Ennis, III to the expulsion channel (13) of Garrigou, in order to provide for a non cylindrical means for centering the insert (9) about the expulsion channel (13) so as to offer better tolerance control in offsetting the insert from the expulsion channel for minimizing the amount of space that a fluid can travel for atomization of spray with directional control through the spray openings.

In regard to claims 5-7, 9, Garrigou as taught above discloses the claimed invention except for the following: a central axis of the insert (9) being offset from the central axis of the expulsion channel (13) by a distance of less than 0.08 mm, and preferably less than 0.03 mm; a spray chamber having a diameter of 1 mm; a spray orifice having a diameter of 0.3 mm; and the standard deviation of the offset between the central axis of the insert relative to the central axis of the expulsion channel being less than 0.05 mm and preferably less than 0.02 mm. It would have been an obvious matter of design choice to offset the central axis of the insert (9) from the central axis of the expulsion channel (13) by a distance of less than 0.08 mm, and preferably less than

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0.03 mm as applicant has not disclosed that offsetting the central axis of the insert (9) from the central axis of the expulsion channel (13) by a distance of less than 0.08 mm, and preferably less than 0.03 mm solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the central axis' not being offset from one another where offsetting the central axis' would provide a benefit that would ensure a spray would be directed past the projections through the expulsion channel.

It would have also been an obvious matter of design choice to provide for a spray chamber having a diameter of 1 mm and a spray orifice having a diameter of 0.3 mm as providing for such dimensions of the spray chamber and spray orifice as claimed are not disclosed by applicant so as to solve any stated problem or is for any particular purpose and appear that the invention would perform equally well if the dimensions of the spray chamber of 1 mm and the spray orifice of 0.3 mm were larger where the sizing of such benefits in atomization of a spray fluid through the restricted opening for directing the fluid.

It would have been a further obvious matter of design choice to provide for a standard deviation of less than 0.05 mm and preferably less than 0.02 mm for the offset between the central axis of the insert relative to the central axis of the expulsion channel since applicant has not disclosed that providing for a standard deviation of less than 0.05 mm and preferably less than 0.02 mm for the offset between the central axis of the insert relative to the central axis of the expulsion channel solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well

without an offset between the insert and expulsion channel where offsetting the central axis' would provide a benefit that would ensure a spray would be directed past the projections through the expulsion channel.

Response to Arguments

Rejection under 35 USC § 102

Applicant's arguments filed 07/17/2007 have been fully considered but they are not persuasive. The insert of Garrigou teaches an insert forming an internal nozzle, where the insert is introduced through the inside of the spray head and is disposed in an expulsion channel so as to form a base surface for a spray profile. Thus, Examiner maintains the rejection held under 35 U.S.C. § 102 (b).

Rejection under 35 USC § 103

Applicant's arguments filed 07/17/2007 fully considered but they are not persuasive. In view of the rejection under 35 U.S.C. § 102 (b), Examiner maintains the rejection of Claims 3, 5-7, 9 and 15.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

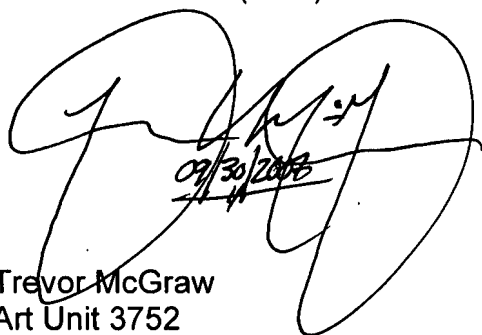
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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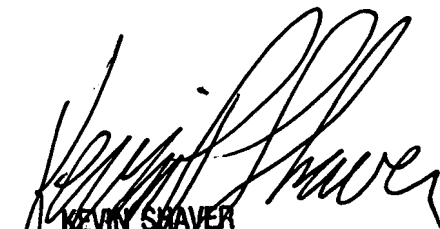
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09/30/2013

Trevor McGraw
Art Unit 3752

TEM



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